

| | Search Text |
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| 6 | ("4174092" "4174204" "4175434" "4178173" "4178469" "4178959" "4066120" "4068371" "4071046" "4072014" "4072615" "4073235" "4076280" "4076583" "4077468" "4081232" "4082236" "4083465" "4086786" "4098275" "4099540" "4099904" "4100799" "4100800" "4101253" "4102179" "4103827" "4104906" "4104948" "4106412" "4106610" "4111615" |
| 7 | (substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (stepped) |
| 8 | ((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (stepped)).ab,clm,ti. |
| 9 | ("3348990" "3876822" "4017968" "4245273" "4254445" "4521449" "4551788" "4729061" "4801489" "4858819" "5050295" "5091825" "5120678" "5129142").PN. |
| 10 | 5406034.URPN. |

| | DBs |
|----|---|
| 6 | USPAT |
| 7 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB |
| 8 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB |
| 9 | USPAT |
| 10 | USPAT |

| | Search Text |
|----|---|
| 11 | ((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (stepped)) not (((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (stepped)).ab,clm,ti.) |
| 12 | (substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (coaxial or concentric) |
| 13 | ((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (coaxial or concentric)) not ((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (stepped)) |
| 14 | ((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (coaxial or concentric)) not ((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (stepped))) and ((bore or diameter) with (greater or smaller)) |
| 15 | ((174/262) or (174/263) or (174/264)).CCLS. |
| 16 | ((174/262) or (174/263) or (174/264)).CCLS. |
| 17 | ((174/265) or (174/266)).CCLS. |
| 18 | ((174/265) or (174/266)).CCLS.) not (((174/262) or (174/263) or (174/264)).CCLS.) |
| 19 | (174/261).CCLS. |

| | DBs |
|----|---|
| 11 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB |
| 12 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB |
| 13 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB |
| 14 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB |
| 15 | USPAT |
| 16 | USPAT |
| 17 | USPAT |
| 18 | USPAT |
| 19 | USPAT |

| | Search Text |
|----|--|
| 20 | ((174/261).CCLS.) not (((174/265) or (174/266)).CCLS.) or (((174/262) or (174/263) or (174/264)).CCLS.)) |
| 21 | ((174/255) or (174/260)).CCLS. |
| 22 | ((174/255) or (174/260)).CCLS.) not (((174/261).CCLS.) or (((174/265) or (174/266)).CCLS.) or (((174/262) or (174/263) or (174/264)).CCLS.)) |
| 23 | ((361/792) or (361/793) or (361/794) or (361/795)).CCLS. |
| 24 | ((361/792) or (361/793) or (361/794) or (361/795)).CCLS.) not (((174/255) or (174/260)).CCLS.) or ((174/261).CCLS.) or (((174/265) or (174/266)).CCLS.) or (((174/262) or (174/263) or (174/264)).CCLS.)) |
| 25 | (361/760).CCLS. |
| 26 | ((361/760).CCLS.) not (((361/792) or (361/793) or (361/794) or (361/795)).CCLS.) or (((174/255) or (174/260)).CCLS.) or ((174/261).CCLS.) or (((174/265) or (174/266)).CCLS.) or (((174/262) or (174/263) or (174/264)).CCLS.)) |
| 27 | ((439/65) or (439/75) or (439/74)).CCLS. |
| 28 | ((439/65) or (439/75) or (439/74)).CCLS.) not (((361/760).CCLS.) or (((361/792) or (361/793) or (361/794) or (361/795)).CCLS.) or (((174/255) or (174/260)).CCLS.) or ((174/261).CCLS.) or (((174/265) or (174/266)).CCLS.) or (((174/262) or (174/263) or (174/264)).CCLS.)) |

| | DBs |
|----|------------|
| 20 | USPAT |
| 21 | USPAT |
| 22 | USPAT |
| 23 | USPAT |
| 24 | USPAT |
| 25 | USPAT |
| 26 | USPAT |
| 27 | USPAT |
| 28 | USPAT |

| | Search Text |
|----|---|
| 29 | ((174/261) or (174/262) or (174/263) or (174/265) or (174/264) or (174/266) or (174/260) or (361/760) or (361/792) or (361/793) or (361/794) or (361/795) or (439/75) or (439/65) or (439/74)).CCLS. |
| 30 | ((361/737) or (361/773)).CCLS. |
| 31 | ((361/737) or (361/773)).CCLS.) not1 |
| 32 | ((361/737) or (361/773)).CCLS.) not (((174/261) or (174/262) or (174/263) or (174/265) or (174/264) or (174/266) or (174/260) or (361/760) or (361/792) or (361/793) or (361/794) or (361/795) or (439/75) or (439/65) or (439/74)).CCLS.) |
| 33 | ((361/785) or (361/788) or (361/791)).CCLS. |
| 34 | ((361/785) or (361/788) or (361/791)).CCLS.) not (((361/737) or (361/773)).CCLS.) or (((174/261) or (174/262) or (174/263) or (174/265) or (174/264) or (174/266) or (174/260) or (361/760) or (361/792) or (361/793) or (361/794) or (361/795) or (439/75) or (439/65) or (439/74)).CCLS.)) |
| 35 | (substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (size or diameter) with (smaller or bigger) |

| | DBs |
|----|---|
| 29 | USPAT |
| 30 | USPAT |
| 31 | USPAT |
| 32 | USPAT |
| 33 | USPAT |
| 34 | USPAT |
| 35 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB |

| | Search Text |
|----|---|
| 36 | ((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (size or diameter) with (smaller or bigger)) and ((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (size or diameter) with (smaller or bigger) with (concentric or coaxial or co adj axial or co-axial or concentrical)) |
| 37 | ((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (size or diameter) with (smaller or bigger)) and ((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (size or diameter) with (smaller or bigger) with (stepped)) |

| | DBs |
|----|---|
| 36 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB |
| 37 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB |

| | Search Text |
|----|---|
| 38 | ((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (size or diameter) with (smaller or bigger)) and ((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (size or diameter) with (smaller or bigger) with (stepped))) not ((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (size or diameter) with (smaller or bigger)) and ((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (size or diameter) with (smaller or bigger) with (concentric or coaxial or co adj axial or co-axial or concentrical))) |
| 39 | ((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (size or diameter) with (smaller or bigger)) and (multilayer\$1 or multi-layer\$1) |

| | DBs |
|----|---|
| 38 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB |
| 39 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB |

| | Search Text |
|----|---|
| 40 | ((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (size or diameter) with (smaller or bigger)) and (multilayer\$1 or multi-layer\$1)) not (((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (size or diameter) with (smaller or bigger)) and ((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (size or diameter) with (smaller or bigger) with (concentric or coaxial or co adj axial or co-axial or concentrical))) or (((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (size or diameter) with (smaller or bigger)) and ((substrate or board or card) with (hole or |

| | DBs |
|----|---|
| 40 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB |

| | Search Text |
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| 41 | <p>((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (size or diameter) with (smaller or bigger)) and (multilayer\$1 or multi-layer\$1)) not</p> <p>((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (size or diameter) with (smaller or bigger)) and ((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (size or diameter) with (smaller or bigger) with (concentric or coaxial or co adj axial or co-axial or concentrical))) or</p> <p>((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (size or diameter) with (smaller or bigger)) and ((substrate or board or card) with (hole or</p> |

| | DBs |
|----|---|
| 41 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB |

| | Search Text | | | | | | | | | | | | | | | | | | | | | | |
|------------------|---|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------------|-----------|-----------|-----------|-----------|-----------|-----------|------------------|--|
| 42 | ((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (size or diameter) with (smaller or bigger)) not (((((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (size or diameter) with (smaller or bigger)) and (multilayer\$1 or multi-layer\$1)) not (((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (size or diameter) with (smaller or bigger)) and ((substrate or board or card) with (hole or holes or via or vias or opening or openings or bore or passageway or passage adj way) with (size or diameter) with (smaller or bigger) with (concentric or coaxial or co adj axial or co-axial or concentrical))) or ((substrate or board or card) | | | | | | | | | | | | | | | | | | | | | | |
| 43 | <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">("3276106"</td> <td style="width: 50%;">"3322880"</td> </tr> <tr> <td>"3446908"</td> <td>"3660726"</td> </tr> <tr> <td>"3964813"</td> <td>"3971610"</td> </tr> <tr> <td>"4030792"</td> <td>"4446505"</td> </tr> <tr> <td>"4543715"</td> <td>"4562301"</td> </tr> <tr> <td>"4653186"</td> <td>"5199879"</td> </tr> <tr> <td>"5538433"</td> <td>"5565654"</td> </tr> <tr> <td>"5761050"</td> <td>"5823830"</td> </tr> <tr> <td>"5909011"</td> <td>"6081996"</td> </tr> <tr> <td>"6083340"</td> <td>"6137064"</td> </tr> <tr> <td>"6303879") . PN.</td> <td></td> </tr> </table> | ("3276106" | "3322880" | "3446908" | "3660726" | "3964813" | "3971610" | "4030792" | "4446505" | "4543715" | "4562301" | "4653186" | "5199879" | "5538433" | "5565654" | "5761050" | "5823830" | "5909011" | "6081996" | "6083340" | "6137064" | "6303879") . PN. | |
| ("3276106" | "3322880" | | | | | | | | | | | | | | | | | | | | | | |
| "3446908" | "3660726" | | | | | | | | | | | | | | | | | | | | | | |
| "3964813" | "3971610" | | | | | | | | | | | | | | | | | | | | | | |
| "4030792" | "4446505" | | | | | | | | | | | | | | | | | | | | | | |
| "4543715" | "4562301" | | | | | | | | | | | | | | | | | | | | | | |
| "4653186" | "5199879" | | | | | | | | | | | | | | | | | | | | | | |
| "5538433" | "5565654" | | | | | | | | | | | | | | | | | | | | | | |
| "5761050" | "5823830" | | | | | | | | | | | | | | | | | | | | | | |
| "5909011" | "6081996" | | | | | | | | | | | | | | | | | | | | | | |
| "6083340" | "6137064" | | | | | | | | | | | | | | | | | | | | | | |
| "6303879") . PN. | | | | | | | | | | | | | | | | | | | | | | | |
| 44 | 6593535.URPN. | | | | | | | | | | | | | | | | | | | | | | |
| 45 | <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">("3348990"</td> <td style="width: 50%;">"3876822"</td> </tr> <tr> <td>"4017968"</td> <td>"4245273"</td> </tr> <tr> <td>"4254445"</td> <td>"4521449"</td> </tr> <tr> <td>"4551788"</td> <td>"4729061"</td> </tr> <tr> <td>"4801489"</td> <td>"4858819"</td> </tr> <tr> <td>"5050295"</td> <td>"5091825"</td> </tr> <tr> <td>"5120678"</td> <td>"5129142") . PN.</td> </tr> </table> | ("3348990" | "3876822" | "4017968" | "4245273" | "4254445" | "4521449" | "4551788" | "4729061" | "4801489" | "4858819" | "5050295" | "5091825" | "5120678" | "5129142") . PN. | | | | | | | | |
| ("3348990" | "3876822" | | | | | | | | | | | | | | | | | | | | | | |
| "4017968" | "4245273" | | | | | | | | | | | | | | | | | | | | | | |
| "4254445" | "4521449" | | | | | | | | | | | | | | | | | | | | | | |
| "4551788" | "4729061" | | | | | | | | | | | | | | | | | | | | | | |
| "4801489" | "4858819" | | | | | | | | | | | | | | | | | | | | | | |
| "5050295" | "5091825" | | | | | | | | | | | | | | | | | | | | | | |
| "5120678" | "5129142") . PN. | | | | | | | | | | | | | | | | | | | | | | |
| 46 | 5406034.URPN. | | | | | | | | | | | | | | | | | | | | | | |

| | DBs |
|----|---|
| 42 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB |
| 43 | USPAT |
| 44 | USPAT |
| 45 | USPAT |
| 46 | USPAT |